

**CLAIM SUMMARY DOCUMENT:**

Please amend the Claims according to the following:

Claims 1-39 (Canceled)

Claim 40 (Currently Amended) A recombinant adenoviral vector derived from a human adenovirus comprising an exogenous nucleotide sequence encoding all or part of an antibody directed against a tumor or an epitope specific for an infectious and pathogenic organism, and placed under the control of the elements necessary for its expression, wherein said antibody is modified by fusion to a toxic or immunopotentiating substance, and wherein said exogenous nucleotide sequence is under the control of elements necessary for expression of said modified antibody.

Claim 41 (Previously Amended) The recombinant adenoviral vector according to Claim 40, wherein said antibody is selected from the group consisting of a native antibody, a chimeric antibody, an antibody fragment and a bispecific antibody.

Claim 42 (Withdrawn - Currently Amended) The recombinant adenoviral vector according to Claim 40, wherein said antibody is may be modified by fusion to a toxic substance selected from a ribonuclease, ricin, diphtheria toxin, cholera toxin, herpes

simplex virus thymidine kinase, cytosine deaminase from *Escherichia coli* or from a yeast of the genus *Saccharomyces*, exotoxin from *Pseudomonas* and human angiogenin or an analog of the said substances.

Claim 43 (Currently Amended) The recombinant adenoviral vector according to

Claim 40, wherein said antibody is modified by fusion to an immunopotentiating substance.

Claim 44 (Currently Amended) A recombinant adenoviral vector derived from a ~~CO24.~~ human adenovirus comprising an exogenous nucleotide sequence encoding all or part of one or more protein or proteins protein(s) of interest capable of forming a multimer, ~~such as a dimer or a tetramer,~~ in a host cell; said exogenous nucleotide sequence being placed under the control of the elements necessary for its expression, ~~said vector being derived from an adenovirus of human, canine, avian, bovine, murine, ovine, porcine or simian origin or a hybrid comprising adenoviral genome fragments of different origins.~~

Claim 45 (Canceled)

Claim 46 (Previously Amended) The recombinant adenoviral vector according to Claim 40, wherein it is defective for replication.

Claim 47 (Previously Amended) The recombinant adenoviral vector according to  
Claim 46, wherein it lacks at least all or part of the E1 region and, optionally, all or part of  
the E3 region.

Claim 48 (Currently Amended) The recombinant adenoviral vector according to  
Claim 46, comprising an wherein said exogenous nucleotide sequence encoding encodes the  
heavy chain of the 2F5 antibody, an IRES element and the light chain of the 2F5 antibody;  
~~said exogenous nucleotide sequence being placed under the control of elements necessary~~  
~~for its expression, wherein said 2F5 antibody is modified by fusion to a toxic or~~  
~~immunopotentiating substance.~~

*E1  
CD4*

Claim 49 (Previously Amended) The recombinant adenoviral vector according to  
Claim 46, comprising an exogenous nucleotide sequence encoding the signal sequence and  
the extracellular I and II domains of the CD4 protein operably fused to the constant  $\gamma 3$   
region (hinge region-CH2 and CH3) of the heavy chain of the 2F5 antibody.

Claim 50 (Previously Amended) The recombinant adenoviral vector according to  
Claim 46, comprising an exogenous nucleotide sequence encoding the signal sequence and  
the extracellular I and II domains of the CD4 protein operably fused to the constant  $\gamma 3$   
region (hinge region-CH2 and CH3) of the heavy chain of the 2F5 antibody and operably  
fused to the mature human angiogenin.

Claim 51 (Previously Amended) The recombinant adenoviral vector according to Claim 40, wherein the elements necessary for the expression comprise a promoter selected from the group consisting of the adenoviral early promoter E1A, the late promoter MLP (Major Late Promoter), the murine or human PGK (Phosphoglycerate kinase) promoter, the SV40 virus early promoter, the RSV (Rous Sarcoma virus) virus promoter, a tumor-specific promoter ~~which is specifically active in tumor cells and a promoter which is specifically active in the infected cells.~~

*E)*  
*CDOT.*  
Claim 52 (Previously Amended) An infectious viral particle comprising a recombinant adenoviral vector according to Claim 40.

Claim 53 (Previously Amended) A eukaryotic host cell comprising a recombinant adenoviral vector according to Claim 40.

Claim 54 (Previously Amended) A pharmaceutical composition comprising a recombinant adenoviral vector according to Claim 40, in association with a pharmaceutically acceptable carrier.

Claim 55 (Previously Amended) The pharmaceutical composition according to Claim 54, comprising  $10^4$  to  $10^{14}$  pfu.

Claim 56 (Previously Amended) The pharmaceutical composition according to Claim 54, wherein it is in injectable form.

Claim 57 (Previously Amended) The recombinant adenoviral vector according to Claim 44, wherein it is defective for replication.

Claim 58 (Currently Amended) The recombinant adenoviral vector according to Claim 44, wherein the elements necessary for the expression comprise a promoter selected from the group consisting of the adenoviral early promoter E1A, the late promoter MLP (Major Late Promoter), the murine or human PGK (Phosphoglycerate kinase) promoter, the SV40 virus early promoter, the RSV (Rous Sarcoma virus) virus promoter, a tumor-specific promoter which is specifically active in tumor cells and a promoter which is specifically active in the infected cells.

Claim 59 (New) The recombinant adenoviral vector according to Claim 44, wherein said multimer is a dimer or a tetramer.

Claim 60 (New) The recombinant adenoviral vector according to Claim 40, wherein said antibody is modified by fusion to a toxic substance and an immunopotentiating substance.